

Message

From: Takaba, Richard R [richard.takaba@doh.hawaii.gov]
Sent: 11/19/2016 4:04:55 AM
To: Whittier, Robert [Robert.Whittier@doh.hawaii.gov]; Frazier, William Mark [william.frazier@doh.hawaii.gov]; Pallarino, Bob [Pallarino.Bob@epa.gov]; Linder, Steven [Linder.Steven@epa.gov]; steven.chang@doh.hawaii.gov
CC: roxanne.kwan@doh.hawaii.gov; Heu, Randall [randall.heu@doh.hawaii.gov]
Subject: RE: Navy SOW revised, November 5, 2016 (MF SOW review 11-17-16)

Thanks Mark and Bob W for your comments. I went thru the whole thing and commented where I could, below.

I was on a trip mon/tues and reviewing other sites for the two new LUST staff W-F and mtgs. I have a request for Randy Heu to review the lab sections at the end.

Thank you

Rich

p. 23 of 58

Table 9 - They will do silica gel prep on MWs 1,2,3,5 ok

Will do Lead Scavengers on MWs 8,9,10,11,12. I need to check NDs on last 4 quarters for other wells.

DOH HEER Office did a Summer 2016 update to the EALs

<http://eha-web.doh.hawaii.gov/eha-cma/Leaders/HEER/environmental-hazard-evaluation-and-environmental-action-levels>

Summary of changes in Summer 2016 update: <http://eha-web.doh.hawaii.gov/eha-cma/documents/fcd95a84-da89-4051-9a09-64b0d8821265>

Page 86 of the pdf Enclosure A Analytes and Action Levels

Table 1 – 1-methynaph is now 6 ug/L instead of 4.7 ug/L (new Table D-1b)

p. 86 Table 2 – same 1-methylnaph is now 6 ug/L instead of 4.7 ug/L

p.87 Table 3 – same 1-methylnaph is 6 ug/L

All other COPCs on these tables are correct.

p.202 of the pdf. They will use bailers to visually detect free product. Good

I would like to see a diagram of where the intake of the bladder pump is located. DOH prefers mid-screen in absence of permissivity data.

Randy, can you check out these laboratory procedures?

Analytical Data Validation p143-163

Data validation p241-250 and on to the end p.461 but it's mostly pictures of labels and packaging

Rich

From: Whittier, Robert

Sent: Thursday, November 17, 2016 2:30 PM

To: Frazier, William Mark <william.frazier@doh.hawaii.gov>; Pallarino, Bob (Pallarino.Bob@epa.gov) <Pallarino.Bob@epa.gov>; Linder, Steven (Linder.Steven@epa.gov) <Linder.Steven@epa.gov>; Chang, Steven Y <steven.chang@doh.hawaii.gov>

Cc: Takaba, Richard R <richard.takaba@doh.hawaii.gov>; Kwan, Roxanne S <roxanne.kwan@doh.hawaii.gov>

Subject: Re: Navy SOW revised, November 5, 2016 (MF SOW review 11-17-16)

Hi All,

Here are my review comments. These comments go beyond just a specific review of the SOW/WP and into the area of investigation strategy. For the specific purpose of the revised SOW/WP approval select what you feel is applicable.

Thanks,
Bob W.

From: Frazier, William Mark

Sent: Thursday, November 17, 2016 1:50:54 PM

To: Pallarino, Bob (Pallarino.Bob@epa.gov); Linder, Steven (Linder.Steven@epa.gov); Chang, Steven Y

Cc: Takaba, Richard R; Kwan, Roxanne S; Whittier, Robert

Subject: Navy SOW revised, November 5, 2016 (MF SOW review 11-17-16)

My eight comments are given below with underlines on the main points:

Pg 3, Figure 1: Please show the Red Hill shaft, not just the well. Same with the BWS Halawa shaft.

Pg 6, section 2.3: Boundaries of the site are listed to be only two, the Study area and the Model Domain.

- Please consistently use these two definitions thru out the SOW (i.e. not facility, not just beneath the tanks, surrounding areas, or as on pg 26 line 30 "flow within aquifers around Red Hill").
- The study area boundary to the southwest is defined as "residential housing". Per the Fig 1 footprint, this means the Alimanu crater and housing located west and south of it Alimanu crater? Please confirm.
- Per Fig 1, if Alimanu crater is included then the cap rock and Salt Lake volcanics are to be further discussed as a southern hydraulic barrier in the CSM, etc?

Pg 8, section 2.4, Table 1: Derivative Deliverable

- The CSMs purpose is listed as NAPL and dissolved phase contaminants. Please insert geology and hydrogeology as well.

Pg 16, section 3.1.1, line 12: Please add lava tubes as a feature that may affect fluid movement.

Pg 24, line 12: States collect GW chem for one round only. Since GW chem needs to be examined over time, would not additional sample collection is needed.

Pg 29, section 3.6 and pg31 line 44: Here the SOW mentions Tracer Study in the title, yet offers no mention of how a tracer study would be applied, tracer test goals, risk or benefits. Please expand the Tracer Study section.

Pg 36, table 13, No 1, third block down, right column: Here it discusses basalt flows, logs and perched aquifers. We suggest mapping and defining the lateral extent of clinker zones, since clinker zones are the zones of highest flow potential.

Pg 40, line 35 to pg 41 line 7: Presents physical data quality for key questions is listed. We suggest clinkers be evaluated first, then the basalt effective porosity for the CF&T modeling, since flow is dominated by the clinker zones.

Regards

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Mark Frazier
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